ABSTRACT OF THE DISCLOSURE

A method of generating normalized bitmap representation for the shape of a visual object for use in search/query/filtering applications segments an image into visual objects. The samples belonging to a visual object of interest are identified. The identified samples that form the largest connected blob are reduced to an un-normalized bitmap. The un-normalized bitmap is then normalized using the mean and covariance of the valid samples to generate the normalized bitmap representation having a standard height and having an orientation such that a principal direction is along a vertical direction. The normalized bitmap representation may be used with a query to search a database of images where the visual objects all have associated normalized bitmap representations. The query bitmap is normalized and matched to each normalized bitmap representation. The visual objects having the lowest mismatch values of their normalized bitmap representation with the query bitmap are identified as the objects of the search.